

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) A current monitoring and interrupting circuit, comprising:
  - an electrically conductive line carrying a DC current;
  - a sensor that outputs a voltage level indicative of a magnitude of the DC current;
  - a comparator that compares the voltage level to a reference potential and generates a circuit indicator signal; and
  - a logic-based current interrupter that controls the current in the line in response to the circuit indicator signal.
2. (original) The circuit of claim 1, further including a current switch disposed in the electrically conductive line and connected to the logic-based interrupter.
3. (original) The circuit of claim 2, wherein the current switch includes a MOSFET.
4. (original) The circuit of claim 1, further including a fuse disposed in the electrically conductive line.
5. (original) The circuit of claim 1, wherein the electrically conductive line is part of an electrical bus energized to at least 60 VDC.